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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,894	12/31/2001	David A. Wyatt	42390.P13869	8819

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EXAMINER

BULLOCK JR, LEWIS ALEXANDER

ART UNIT PAPER NUMBER

2195

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/038,894

Applicant(s)

WYATT, DAVID A.

Examiner

Lewis A. Bullock, Jr.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 17-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-16 are, drawn to rebalancing resources based on a global resource namespace, classified in class 718, subclass 104.
 - II. Claims 17-20 are, drawn to managing shared resources, classified in class 716, subclass 10.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions Groups I and Group II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination requires just managing resources of an integrated circuit. The subcombination has separate utility such as steps / instructions to maintain and rebalance the resources based on the namespace. The combination does not require the use of a namespace or the rebalancing as detailed in the embodiment of the combination. The subsequent means for managing could be an administrator designing or configuring the resources of an integrated circuit and thereby classified and examined under class 716. The combination claims are broad to encompass all

embodiments of managing of circuit resources that would stretch multiple classes, and would not necessarily include the embodiment of the subcombination.

3. Newly submitted claims 17-20 are directed to an invention that is independent or distinct from the invention originally claimed as detailed by the reasons given above.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 17-20 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by RICHEK (U.S. Patent 5,450,570).

As to claim 1, RICHEK teaches a computer-implemented method, comprising: maintaining a global resource namespace (configuration file / array) including a list of a plurality of child and parent resource objects (via the resource segments indicating a parent status and a grandparent status) of an integrated circuit and a representation of the relationship among the child and parent resource objects (via the resource

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segments indicating a parent status and a grandparent status); and rebalancing the plurality of resource objects (via determining a conflict and performing the allocate and backtrack subroutines to alleviate the conflict) (col. 5, lines 54 – col. 6, line 2; col. 4, lines 18-40; col. 15, lines 41-66; col. 21, lines 33-65; col. 28, lines 7-45; col. 29, lines 21 – col. 30, line 61; col. 31, lines 5-col. 32, line 16; col. 37, lines 42 – col. 38, line 19; col. 39, lines 15 – col. 40, line 26).

As to claim 2, RICHEK teaches rebalancing the plurality of resource objects includes recalculating available resources (via determining a conflict and performing the allocate and backtrack subroutines to alleviate the conflict with alternative resources or reallocate a parent resource based on its alternative resources) (col. 5, lines 54 – col. 6, line 2; col. 4, lines 18-40; col. 15, lines 41-66; col. 21, lines 33-65; col. 28, lines 7-45; col. 29, lines 21 – col. 30, line 61; col. 31, lines 5-col. 32, line 16; col. 37, lines 42 – col. 38, line 19; col. 39, lines 15 – col. 40, line 26).

As to claim 3, RICHEK teaches rebalancing the plurality of resource objects includes determining whether the available resources are less than currently consumed resources (via determining a conflict and performing the allocate and backtrack subroutines to alleviate the conflict with alternative resources or reallocate a parent resource based on its alternative resources) (col. 5, lines 54 – col. 6, line 2; col. 4, lines 18-40; col. 15, lines 41-66; col. 21, lines 33-65; col. 28, lines 7-45; col. 29, lines 21 –

col. 30, line 61; col. 31, lines 5-col. 32, line 16; col. 37, lines 42 – col. 38, line 19; col. 39, lines 15 – col. 40, line 26).

As to claim 4, RICHEK teaches rebalancing the plurality of resource objects includes allocating a temporary namespace if the available resources are less than the currently consumed resources (via alleviating the conflict by using a generic configuration file, reassign the resources, and resaving the configuration) (col. 44, lines 45 – col. 45, line 3; col. 46, lines 24-46; col. 53, lines 4-42).

As to claim 5, RICHEK teaches rebalancing the plurality of resource objects includes for each child resource object determining whether the child resource object has an owner (via determining a conflict, hence a resource is owned by another entity and performing the allocate and backtrack subroutines to alleviate the conflict with alternative resources or reallocate a parent resource based on its alternative resources) (col. 5, lines 54 – col. 6, line 2; col. 4, lines 18-40; col. 15, lines 41-66; col. 21, lines 33-65; col. 28, lines 7-45; col. 29, lines 21 – col. 30, line 61; col. 31, lines 5-col. 32, line 16; col. 37, lines 42 – col. 38, line 19; col. 39, lines 15 – col. 40, line 26).

As to claim 6, RICHEK teaches rebalancing the plurality of resource objects includes performing an attachment routine for each child object that is found to have an owner (via determining a resource can be shared or alternative resources can be used and thereby allocating the resource) (col. 5, lines 54 – col. 6, line 2; col. 4, lines 18-40;

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col. 15, lines 41-66; col. 21, lines 33-65; col. 28, lines 7-45; col. 29, lines 21 – col. 30, line 61; col. 31, lines 5-col. 32, line 16; col. 37, lines 42 – col. 38, line 19; col. 39, lines 15 – col. 40, line 26).

As to claim 7, RICHEK teaches rebalancing the plurality of resource objects includes destroying the old global resource namespace (via alleviating the conflict by using a generic configuration file, reassign the resources, and resaving the configuration) (col. 44, lines 45 – col. 45, line 3; col. 46, lines 24-46; col. 53, lines 4-42).

As to claim 8, RICHEK teaches rebalancing the plurality of resource objects includes renaming the temporary namespace to become a new global resource namespace (via resaving the configuration and using this configuration) (col. 44, lines 45 – col. 45, line 3; col. 46, lines 24-46; col. 53, lines 4-42).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over WOLFF (U.S. Patent 6,067,545).

As to claim 9, WOLFF teaches a machine-readable medium having stored thereon instructions which, when executed by a computer system, causes the computer system to perform the method comprising: maintaining a global resource namespace (via a uniform file directory format in the directory/access database / resource database having a plurality of records / table of all available resources and available paths to the resources through servers / single system image of all network resources and all available paths to those resources through available nodes) including a list of a plurality of resource objects (resource records) and a representation of the relationship among the resource objects (col. 22, lines 10-67, wherein each record has a pointer to the parent directory) (see also col. 21, lines 10-34, wherein the resources are volumes and contains fields that indicate the parent administrative node, i.e. parent server, and current administrative nodes, i.e. currently assigned server; col. 61, lines 1-52; col. 31, lines 30-42; col. 9, line 35-63; abstract, "Each of the resources are coupled to at least two of the server nodes...for handling an administrative portion of an I/O request for the corresponding resource.") and rebalancing the plurality of resource objects (via determining a time out interval has expired / based on a resource being unavailable or coming online) (col. 50, line 20 – col. 51, line 2; col. 8, lines 10-34; abstract). However, WOLFF does not explicitly detail that the relationship is a parent-child relationship. WOLFF does teach that the functional relationship exists between the databases (col. 23, lines 20-54) and information in the global resource namespace has an indication of a parent (col. 21, lines 10-34 wherein the resources are volumes and contains fields that indicate the parent administrative node, i.e. parent server, and current

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administrative nodes, i.e. currently assigned server). Therefore, it would be obvious to one skilled in the art at the time of the invention that the object, i.e. record or volume, having an indication of a parent is a child of that record and therefore has a parent-child relationship.

As to claim 10, WOLFF teaches rebalancing the plurality of resource objects includes recalculating available resources (col. 50, line 20 – col. 51, line 2; col. 8, lines 10-34).

As to claim 11, WOLFF teaches rebalancing the plurality of resources objects includes determining whether the available resources are less than currently consumed resources (via calculating weights) (col. 8, lines 10-34; col. 29, line 45 – col. 30, line 2).

As to claim 12, WOLFF teaches rebalancing the plurality of resource objects includes allocating a temporary namespace if the available resources are less than the currently consumed resources (via rebalancing the system based on preferred resource-server affiliations, expected volume traffic, relative server processing capability, and group priority, and domain matches and updating the current namespace / database and replicating a copy of the database to each server) (col. 8, lines 10-34).

As to claim 13, WOLFF teaches rebalancing the plurality of resource objects includes for each resource object determining whether the resource object has an

owner (via determining who the administrative server for a volume is in response to an I/O by examining the server configuration database) (col. 10, lines 25-39).

As to claim 14, WOLFF teaches rebalancing the plurality of resource objects includes performing an attachment routine for each resource object that is found to have an owner (via assigning the server to the resource) (abstract; col. 2, lines 37-64; col. 3, lines 9-12).

As to claims 15 and 16, WOLFF teaches rebalancing the plurality of resource objects includes updating the namespace (namespace / database) based on the rebalancing of resource objects and distributing the namespace to each server (abstract; col. 8, lines 10-34). It would be obvious to one of ordinary skill in the art at the time of the invention that updating of the namespace would involve either (1) the creation of a temporary namespace, updating, and subsequent storing of the namespace modifications as the current namespace or (2) the use of the current namespace as the temporary namespace, updating, and subsequent storing of the namespace as the new namespace. Both operations of updating destroy the old namespace such that the subsequent transmission overwrites the current namespace as the new namespace. Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention that updating and renaming of a namespace is obvious in view of WOLFF in order to synchronize the namespace on a plurality of servers.

Response to Arguments

8. Applicant's arguments filed November 16, 2005 have been fully considered but they are not persuasive. Applicant argues in regards to claims 9-16 that Wolff does not teach the cited step of "maintaining a global resource namespace including a list of a plurality of child and parent resource objects of an integrated circuit." In response, the examiner states that claim 9 is not amended to include such a limitation. Claim 1 is the only claim amended in the response to include the limitation that the resource objects of an integrated circuit. Claim 9 does not include such a limitation and therefore the argument is moot. As stated in the rejection, Wolff teaches the maintaining a global resource namespace including a list of a plurality of child and parent resource objects. There is no express limitation in the claims that the resource objects are of an integrated circuit. M.P.E.P. 2111 details that claims are given their broadest possible interpretation consistent with the specification wherein limitations of the specification are not read into the claim language. Since the claims do not allude to the resource objects being of an integrated circuit and the limitation of such in the specification cannot be read into the interpretation of the claims, the argument of such is moot and improper.
9. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

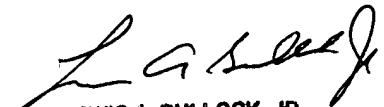
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis A. Bullock, Jr. whose telephone number is (571) 272-3759. The examiner can normally be reached on Monday-Friday, 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 2, 2006



LEWIS A. BULLOCK, JR.
PRIMARY EXAMINER